

CLAIMS

1. An isolated DH-PH tandem domain derived from the Ect 2 sequence and having the sequence as set out in DNA sequence 1 (SEQ ID NO:1).
- 5 2. An isolated domain as claimed in claim 1 having a specificity for PtdIns3P, PtdIns5P or PtdIns3,5P₂.
3. A method of screening for agents that modulate the interaction of the Ect 2 PH domain with a PIs, comprising incubating the Ect 2 PH domain polypeptide and said PI with a candidate agent under conditions conducive for binding and determining whether said candidate agent modulates the binding of the Ect 2 PH domain with the PI.
- 10 4. A method as claimed in claim 3 wherein the PI is a PI having a phosphate group at the 3 and/or 5 position.
5. A method as claimed in claims 3 or 4 wherein said agent is an antibody, a small organic molecule or a nucleic acid molecule.
- 20 6. A method as claimed in any of claims 3 to 5 wherein the PH domain is provided as part of the construct having a sequence as set out in DNA sequence 1 (SEQ ID NO:1).
- 25 7. A method of identifying an agent that modulates the cell cycle activity of Ect 2, the method comprising:
 - (a) providing a sample containing a polypeptide comprising an Ect 2 PH domain, and a candidate agent;
 - (b) measuring the binding of the polypeptide comprising an Ect 2 PH domain to the candidate agent in the sample; and
 - 30 (c) comparing the binding of the polypeptide comprising an Ect 2 PH domain to the candidate agent in the sample with the binding of the polypeptide comprising an

Ect 2 PH domain to a control agent, wherein the control agent is known to not bind to the polypeptide comprising an Ect 2 PH domain;

5 wherein an increase in the binding of the polypeptide comprising an Ect 2 PH domain to the candidate agent in the sample relative to the binding of the polypeptide comprising an Ect 2 PH domain to the control agent indicates that the candidate agent modulates the cell cycle function of Ect 2.

8. The use of a polypeptide capable of binding to PIs having a 3 and/or 5 phosphate group but not capable of binding to a PI having a 4 phosphate group in a screening
10 method for identifying a compound suitable for modulating signalling by a PI having a 3 and/or 5 phosphate group.

9. A use as claimed in claim 8 wherein the polypeptide comprises an Ect 2 PH domain.